INCH-POUND
MIL-PRF-22/2D
4 August 2000
SUPERSEDING
MIL-PRF-22/2C
14 February 1966

PERFORMANCE SPECIFICATION

RESISTORS, VARIABLE, (WIRE-WOUND, POWER TYPE), (ENCLOSED), STYLE RP07

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for style RP07, variable, wire-wound, power type, enclosed resistors.

1.2 Part or Identifying Number (PIN). Variable resistors covered by this specification are identified by a PIN which is in the following form.

M22/02	-	0001	2	SB
Associated specification number		Resistance value designator (3.3)	Electrical off position (3.4)	Shaft and type of mounting (3.5)

NOTE: The slash "/" and the dash "-" are needed in the procurement of this part.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43216-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

SPECIFICATION

DEPARTMENT OF DEFENSE

MIL-PRF-22 - Resistors, Variable, (Wire Wound, Power Type), General Specification for.

Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Document Automation and Production Service, Building 4D (DPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094).

2.3 Order of precedence. In event of a conflict between the text of this document and the references cited herein (except for related associated specifications, specification sheets, or MS sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 General. The requirements for acquiring the product described herein shall consist of this document and MIL-PRF-22.

3.2 Interface and physical dimensions. The resistors shall meet the interface and physical dimensions specified in figure 1.

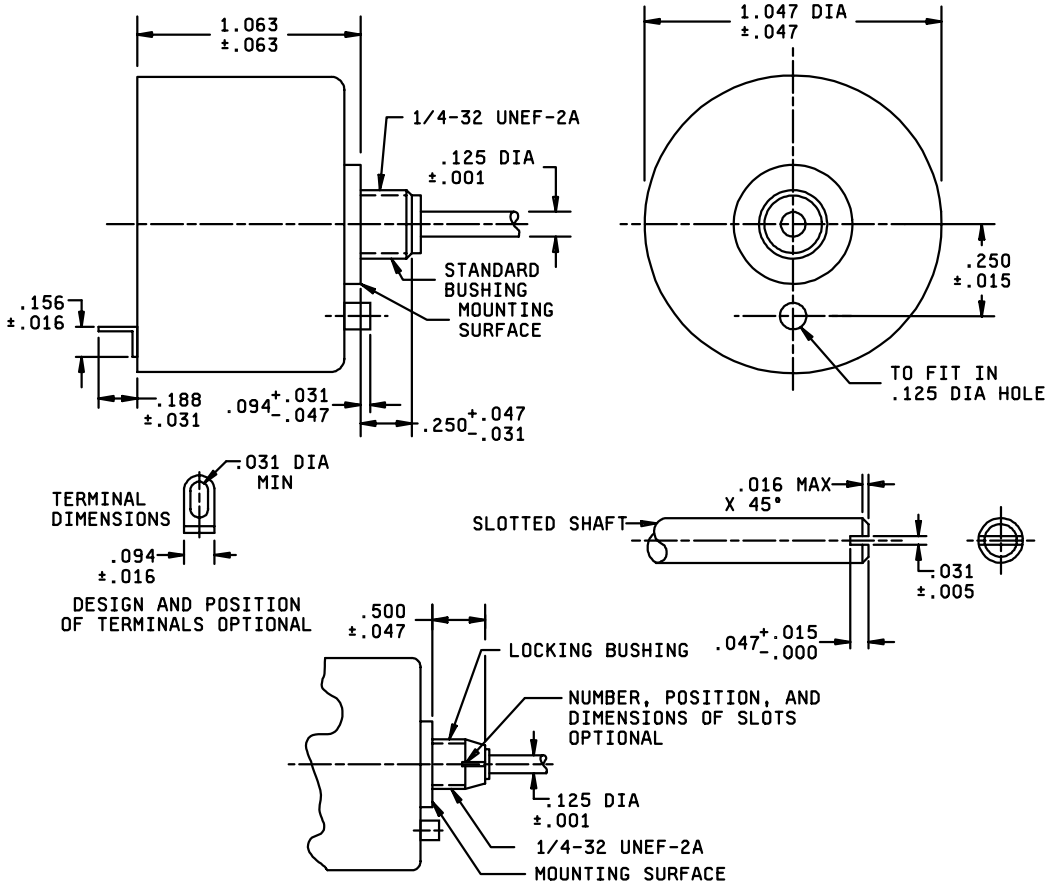
3.3 Nominal resistance and maximum current. The nominal total resistance and maximum current shall be as specified in table I.

TABLE I. Style RP07.

PIN 1/	Type designator (reference only) 1/	Nominal total resistance (ohms)	Maximum current (amperes) 2/
M22/02-0001---	RP07---1R0KK	1.0	2.50
M22/02-0002---	RP07---2R0KK	2.0	1.77
M22/02-0003---	RP07---2R5KK	2.5	1.58
M22/02-0004---	RP07---3R0KK	3.0	1.44
M22/02-0005---	RP07---5R0KK	5.0	1.12
M22/02-0006---	RP07---6R0KK	6.0	1.02
M22/02-0007---	RP07---8R0KK	8.0	0.88
M22/02-0008---	RP07---100KK	10	0.79
M22/02-0009---	RP07---150KK	15	0.65
M22/02-0010---	RP07---250KK	25	0.50
M22/02-0011---	RP07---350KK	35	0.42
M22/02-0012---	RP07---500KK	50	0.35
M22/02-0013---	RP07---750KK	75	0.29
M22/02-0014---	RP07---101KK	100	0.25
M22/02-0015---	RP07---151KK	150	0.21
M22/02-0016---	RP07---201KK	200	0.18
M22/02-0017---	RP07---251KK	250	0.16
M22/02-0018---	RP07---351KK	350	0.13
M22/02-0019---	RP07---501KK	500	0.11
M22/02-0020---	RP07---751KK	750	0.091
M22/02-0021---	RP07---102KK	1,000	0.079
M22/02-0022---	RP07---152KK	1,500	0.064
M22/02-0023---	RP07---252KK	2,500	0.050
M22/02-0024---	RP07---352KK	3,500	0.042

1/ The complete type designation and part number include symbols indicting electrical off position from table II, style of shaft and type of mounting from table III and length of operating shaft from table IV. (see example of part number.)
2/ Not to be exceeded on any portion of the winding.

3.4 Electrical off position. The existence and location of an electrical off position at one end of the resistance element is indicated by a single digit, in accordance with table II.



Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.016	0.41	.063	1.60	.156	3.96	.500	12.70
.005	0.13	.031	0.79	.094	2.39	.188	4.78	1.047	26.59
.015	0.38	.047	1.19	.125	3.18	.250	6.35	1.063	27.00

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information.

FIGURE 1. Style RP07

TABLE II. Electrical off position.

Symbol	Electrical off position
1	No electrical off position.
2	Electrical off position at end of rotation of control knob in a counterclockwise direction.
3	Electrical off position at end of rotation of control knob in a clockwise direction.

3.5 Shaft and type of mounting. The shaft, type of mounting, and length of shaft is identified by a two letter symbol. The first letter indicates the style of shaft and type of mounting and the second letter indicates the length of the shaft, in accordance with tables III and IV, respectively.

TABLE III. Style of shaft and type of mounting.

Symbol	Style of shaft	.125 inch diameter shaft	
		Standard bushing	Locking bushing
S	Slotted	X	
U	Slotted		X

TABLE IV. Length of operating shaft.

Standard length of shaft measured from mounting surface of resistor		
Symbol	Slotted	
	0.125 inch diameter shaft in inches (±0.0468)	
	Standard bushing	Locking bushing
B	0.625	0.625
D		0.875
H	1.500	
J	2.000	
K	2.500	
S	0.375	

3.6 Resistance tolerance. The resistance tolerance available is ±10 percent.

3.7 Power rating. The power rating shall be 6.5 watts at 25°C.

3.8 Torque.

3.8.1 Operating torque. The operating torque shall not be less than 0.5 ounce-inches (oz-in) minimum and 6.0 ounce-inches maximum.

3.8.2 Stop torque. The stop torque shall be 5.0 pound-inches (lb-in) maximum.

3.8.3 Locking torque (as applicable). For resistors equipped with a locking bushing, the locking torque shall withstand 20 oz-in without movement.

3.9 Mechanical rotation. The mechanical rotation shall be 300° +5°, -10°.

3.10 Hardware. The mounting nut shall be corrosion-resistant with a 0.0625-inch thickness and shall measure 0.3125-inch across the hexagonal flats. Thread size shall be 0.250-32NEF-2B. A corrosion-resistant internal-tooth lockwasher of suitable size shall be supplied. The locking nut for the locking bushing type resistor shall be corrosion-resistant with a 0.156-inch thickness and shall measure 0.3125-inch across the hexagonal flats. Thread size shall be 0.250-32NEF-2B.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection shall be in accordance with MIL-PRF-22.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The intended use specified in MIL-PRF-22 is applicable to this specification.

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of this specification, and the complete PIN (see 1.2).

b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of the individual documents referenced (see 2.1).

c. Packaging instructions (see 5.1).

6.3 PIN. This specification requires a PIN that describes technology and appropriate references to associated documents (see 1.2 and 3.1).

6.4 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air Force - 11

Preparing activity:
DLA - CC

Review activities
Army - AR, AT, AV, CR4
Navy - AS, CG, MC, OS
Air Force - 19

(Project 5905-1581-02)